measures for security, radiological protection, and personal safety.

[21 FR 764, Feb. 3, 1956. Redesignated at 25 FR 1607, Feb. 25, 1960, and 25 FR 12730, Dec. 13, 1960, and amended at 32 FR 2563, Feb. 7, 1967; 44 FR 47919, Aug. 16, 1979; 52 FR 31612, Aug. 21, 1987; 54 FR 6877, Feb. 15, 1989; 55 FR 5979, Feb. 21, 1990]

§ 70.56 Tests.

Each licensee shall perform, or permit the Commission to perform, such tests as the Commission deems appropriate or necessary for the administration of the regulations in this part, including tests of (a) special nuclear material, (b) facilities wherein special nuclear material is utilized, produced or stored, (c) radiation detection and monitoring instruments, and (d) other equipment and devices used in connection with the production, utilization or storage of special nuclear material.

[21 FR 764, Feb. 3, 1956. Redesignated at 25 FR 1607, Feb. 25, 1960, and 25 FR 12730, Dec. 13, 1960]

§ 70.57 Measurement control program for special nuclear materials control and accounting.

(a) As used in this section:

(1) *Measurement* includes sampling and means the determination of mass, volume, quantity, composition or other property of a material where such determinations are used for special nuclear material control and accounting purposes.

(2) *Measurement system* means all of the apparatus, equipment, instruments and procedures used in performing a measurement.

(3) *Reference standard* means a material, device, or instrument whose assigned value is known relative to national standards or nationally accepted measurement systems.

(4) *Traceability* means the ability to relate individual measurement results to national standards or nationally accepted measurement systems through an unbroken chain of comparisons.

(5) *Random error* refers to the variation encountered in all measurement work, characterized by the random occurrence of both positive and negative deviations from a mean value.

(6) A *systematic error* is a constant unidirectional component of error that affects all members of a data set; its value can, in some instances, be estimated by the deviation of the mean of a measurement process from a reference value. A systematic error whose value has been determined in this manner is called a bias, whose effect can be corrected for.

(7) *Uncertainty* is the extent to which a measurement result is in doubt because of the effects of random error variances and the limits of systematic errors associated with a measurement process, after the measurements result has been corrected for bias.

(8) *Calibration* means the process of determining the numerical relationship between the observed output of a measurement system and the value, based upon reference standards, of the characteristics being measured.

(b) In accordance with § 70.58(f), each licensee who is authorized to possess at any one time and location strategic special nuclear material, or special nuclear material of moderate strategic significance, in a quantity exceeding one effective kilogram and to use such special nuclear material for activities other than those involved in the operation of a nuclear reactor licensed pursuant to part 50 of this chapter, those involved in a waste disposal operation, or as sealed sources, shall establish and maintain a measurement control program for special nuclear materials control and accounting measurements. Each program function must be identified and assigned in the licensee organization in accordance with § 70.58(b)(2), and functional organizational relationships must be set forth in writing in accordance with § 70.58(b)(3). The program must be described in a manual which contains the procedures, instructions, and forms prepared to meet the requirements of this paragraph, including procedures for the preparation, review, approval, and prompt dissemination of any program modifications or changes. The licensee shall retain the current program as a record until the Commission terminates the license authorizing possession of the nuclear materials. The licensee's program shall include the following:

(1) The licensee shall assign responsibility for planning, developing, coordinating, and administering the program